BUILDINGS AND FACILITIES APPROPRIATION REQUIREMENTS SUMMARY

FY1998 NATIONAL INSTITUTES OF HEALTH (Fy1998-2002 PLAN)

			FUNDING	APPROPRIATION	PAGE
PROJ. NO.		PROJECT DESCRIPTION	REQUIREMENTS	REQUEST	NO.
1	М	Mark O. Hatfield Clinical Research Center	\$220,000,000	\$90,000,000	98-1
2		Safety and Reliability Upgrades, RML	\$1,000,000	\$1,000,00	98-3
3	M	Infrastructure Modernization Program	\$36,000,000	\$36,000,000	98-5
4	Α	Asbestos Abatement Program	\$5,000,000	\$5,000,000	98-7
5	Α	Fire Protection and Life Safety Program	\$2,000,000	\$2,000,000	98-9
6	Α	Indoor Air Quality Improvements Program	\$1,500,000	\$1,500,000	98-11
7	Α	Eliminate Barriers to Persons with	\$1,000,000	\$1,000,000	98-13
		Disabilities			
8		Biosafety Level 3 Lab, RML	\$6,300,000	\$6,300,000	98-15
9	M	Upgrade Utility Infrastructure, NIHAC	\$19,400,000	\$3,400,000	98-16
10	AΑ	Cagewash Facility, RML (Rehabilitation	\$2,300,000	\$2,300,000	98-18
		(of Animal Research Facilities Program)			
11	AA	New Animal Holding Facility, RML	\$2,500,000	\$2,500,000	98-20
		(Rehabilitation of Animal Research Facilities			
		Program)			
12	AA	Rehabilitation of Animal Research Facilities	\$500,000	\$500,000	NA
		Program (General/Maintenance Projects), RML			
13		New Day Care Center	\$3,500,000	\$3,500,000	98-22
14	Α	General Repairs and Improvements Program	\$106,810,000	\$35,000,000	98-24
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FY1998 B&F FUNDIN	REQUIREMENT	T \$407,810,000

PRIATION REQUEST	\$190,000,000

NOTES:

- 1. Projects with an "M" are multi-year funded.
- 2. Projects with an "A" are Annual Program Requirements.
- 3. Projects with a "AA" are under the Rehabilitation of Animal Facilities Program.
- 4. Project No. 12 was inserted into the B&F to cover the anticipated maintenance requirements for the AAALAC Program. "NA" was identified as the page number for the project since the scope of work is general in nature.

MARK O. HATFIELD CLINICAL RESEARCH CENTER

Funds in the amount of \$2.50 M were provided in the FY 1995 Clinical Center Review to evaluate conceptual approaches for the renewal of the Clinical Center. The FY 1996 appropriation provided \$23.00 M to develop detailed program requirements and complete the design development for the initial phase of the Clinical Center Renewal Program. In FY 1997, the President's Budget request included \$310 M to complete the design and to construct the Clinical Research Center. Full authorization in the amount of \$333 M was received in FY1997 and \$90M was appropriated. The proposed appropriations language reflect providing \$90M in FY 1998 and FY 1999, and \$40M in FY2000. The total appropriation estimate for the project of \$333 M is \$67M less than the conceptual cost estimate for the project and \$90M less than the program estimate.

PROJECT DESCRIPTION

The Clinical Center is a unique facility which effects state-of-the-art clinical research around the world. It is the keystone of the Intramural Research Program (IRP) and a national treasure for clinical research.

In 1994, Congress requested an independent review of the IRP. The External Advisory Committee's investigation verified that NIH's intramural program is vital to the mission of the NIH and, the Clinical Research Program is essential in assuring the success of its mission. The infrastructure in the existing Clinical Center (Building 10) is failing, is in need of repair, and the NIH must begin as soon as possible with the renewal of the Clinical Center. This report further recommended that the renewal effort begin with the construction of a new 250-bed research hospital and clinical labs oriented in close proximity to the patients. NIH concurred with this recommendation and prepared a Program Justification Document which identified the requirement for a 600,000 gsf research hospital with 250,000 gsf of laboratory space. Concurrent with construction of this new facility, a long-range plan for upgrading and maintaining the research labs and ambulatory care space in the existing facility will be developed with the recommendations of the External Advisory Committee. This plan will utilize space vacated by existing Building 10 occupants scheduled to occupy the new Clinical Research Center, and allow a phased renovation to occur. The goals of the phased renovation program are to repair the failing infrastructure, to provide lab space suitable for modem research, to reduce overcrowded lab spaces, and potentially to relocate labs occupying off-campus leased facilities back to the main campus.

PROJECT JUSTIFICATION

Over the past 40 years, the Clinical Center (Building 10) has undergone numerous renovations and expansions resulting in utility infrastructure systems of varying ages and conditions. The major infrastructure systems that provide fire safety, critical electrical power, lighting, air conditioning, and plumbing for the Clinical Center are old, outmoded, and do not have the capacity to meet current research demands. These systems are at the end of their service life and have become potentially unsafe, functionally obsolete, expensive to maintain and in some cases, inoperable.

The severity of deficiencies cannot be successfully corrected using routine maintenance repair and improvement projects. The expediency and complexity of correcting these deficiencies requires a focused, coordinated effort to insure safe and uninterrupted services to ongoing research and patient care.

Current estimates indicate that the major static distribution systems (HVAC ductwork, piping, electrical cabling) within the existing Clinical Center have an estimated remaining service life of 12 to 15 years. This is important since these deficiencies cannot be corrected while the area is occupied. It is essential that the Clinical Research Center Project and subsequent plan for upgrading the existing Building 10 be completed within this time frame to avoid wide spread and potentially catastrophic failures.

JUSTIFICATION FOR DIRECT FEDERAL CONSTRUCTION

The uniqueness of the facility requirements cannot be met in a leased facility.

SAFETY AND RELIABILITY UPGRADES. ROCKY MOUNTAIN LAB

This request is the fifth under a multi-year program to provide safe and reliable facilities on the Rocky Mountain Laboratories (RML) campus.

The appropriation and funding requirements summary follows:

Fiscal Year	Amount
1994 1995 1996 1997 1998	\$ 1.00 M (Appropriated Amount) \$ 2.00 M (Appropriated Amount) \$ 4.70 M (Appropriated Amount) \$ 9.30 M (Appropriated Amount) \$ 1.00 M (Appropriations Requested)
Total Appropriations To Date	\$17.00 M
Total Funding Requirement to Date	\$18.00 M

PROJECT_DESCRIPTION

The RML campus utilized by the National Institutes of Allergy and Infectious Diseases, consists of a total of 26 small structures, which include bio-safety level 2 and 3 laboratories, animal facilities, administrative and service buildings. The investigative focus is on AIDS, Tuberculosis, Chlamydia, and other infectious diseases. The RML, a well-established productive complex, is being modernized under twelve (12) phase sequenced renovation effort. At the conclusion of this project, obsolete buildings will be demolished, historic structures refurbished, and new utility systems provided. These renovations are needed to ensure compliance of the facility with fire, life safety and other building codes.

PROJECT JUSTIFICATION

Building systems upgrades are required to assure operational reliability and compliance with current building codes and safety standards for biomedical research laboratories. Current mechanical and electrical systems are inadequate to provide a safe working environment required to support infectious disease research currently being conducted at RML. The electrical distribution system must be upgraded to handle the additional loads required by the new HVAC

systems. Certain animal holding areas will be unable to meet AAALAC accreditation in the near future without modernization of primary building systems.

JUSTIFICATION FOR DIRECT FEDERAL CONSTRUCTION

This project involves the upgrading of existing federal facilities.

INFRASTRUCTURE MODERNIZATION PROGRAM (IMP)

This request is for continued modernization of the central utility systems on the NIH Bethesda campus under the IMP Program. This project phase expands the power plant to include new chillers, pumping and other ancillary equipment. The appropriations and funding requirements summary follows:

Fiscal Year	Amount	
1991	\$ 18.832 M	(Appropriated Amount)
1992	\$ 33.375 M	(Appropriated Amount)
1993	\$ 35.533 M	(Appropriated Amount)
1994	\$ 13.485 M	(Appropriated Amount)
1995	\$ 13.439 M	(Appropriated Amount)
1996	\$ 13.800 M	(Appropriated Amount)
1997	\$ 43.100 M	(Appropriated Amount)
1998	\$ 36.000 M	(Appropriation Requested)
1999	\$ 7.500 M	(In FY 1998-2002 Plan)
2000	\$ 0.000 M	(Funding Requirement)
Total Appropriations to Date	\$171.564 M	
Funding Requirement to Date	\$215.064 M	

PROJECT DESCRIPTION

This project replaces, expands, modifies, and improves the major mechanical and electrical central utility systems and equipment which are deteriorating, outdated, and under capacity to successfully service the administrative, research, and medical requirements at the NIH. Elements include central utility systems, equipment, and facility accommodations. Specific central utility services include chilled water, steam, electrical power (normal, critical, and emergency), compressed air, domestic water, sewerage, and natural gas. Equipment includes chillers, boilers, control and monitoring systems, pumps, switchgear, and other ancillary apparatus. Facility accommodations include the necessary conversion, expansion, or creation of mechanical and electrical system spaces, as well as any program relocations which are a result of this effort.

Fiscal Year 1998 is the eighth funding year. It will include replacing and/or enhancing specific central utility equipment and systems which have been identified as mandatory to maintain current campus-wide operations to meet current needs. Work under this phase will include:

- 1. Building 11 Expansion (\$4.0M) This project provides for the replacement and upgrade of central controls for the main boilers and chillers within the Power Plant and modifies the existing structural systems on the boiler side of the facility.
- 2. Boiler 6 (\$24.00M) This project provides a new boiler and a facility to house the unit to meet the anticipated increase in heating requirements.
- 3. Utility Distribution Systems (\$ 8.0M)- This project provides new underground piping for the chilled water and steam distribution systems.

The IMP is a flexible program to logically and rationally respond to changes in facility planning and more detailed assessments of our existing utility systems.

PROJECT JUSTIFICATION:

The majority of the central plant facilities and utility distribution systems at the NIH are from 20 - 40 years old. Significant deterioration from age and use is now evident in both the plant equipment and the distribution systems. Further, the service demand has exceeded the existing capacity. Less critical but significant problems exist in other central utility systems such as sanitary, potable water, electrical, lighting and storm sewers. The NIH has developed the Infrastructure Modernization Improvement Program to carry out the replacement and expansion of the central utility systems.

JUSTIFICATION FOR DIRECT FEDERAL CONSTRUCTION

This project involves alterations and upgrades to federally-owned real property.

ASBESTOS ABATEMENT PROGRAM

This request is the fifth under a IO-year comprehensive program to remove asbestos from existing NIH buildings. The appropriations and funding requirements summary for this program follows:

Fiscal Year	Amount
1994	\$ 5.50 M (Appropriated Amount)
1995	\$ 5.50 M (Appropriated Amount)
1996	\$ 5.50 M (Appropriated Amount)
1997	\$ 6.00 M (Appropriated Amount)
1998	\$ 5.00 M (Appropriation Requested)
1999	\$ 5.50 M (In FY1998-2002 Plan)
2000	\$ 5.50 M (In FY1998-2002 Plan)
2001	\$ 5.50 M (In FY1998-2002 Plan)
2002	\$ 5.50 M (In FY1998-2002 Plan)
2003	\$ 5.50 M (Funding Requirement)
Total Appropriations To Date	\$22.50 M
Total Funding Requirement to Date	\$55.00 M

PROJECT DESCRIPTION

This project continues removal or encapsulation of existing asbestos materials campus-wide. The requested funds will enable asbestos abatement in mechanical and other spaces to be handled on a priority basis to provide an orderly, long term, asbestos removal program to be accomplished. Results of a recent survey suggest that the mechanical equipment areas in buildings constructed before 1979, require significant asbestos abatement due to deterioration of the existing materials. Strategies such as cleaning, patching and limiting access to spaces is becoming too costly to preclude exposure of personnel to the materials.

PROJECT JUSTIFICATION

Asbestos-containing insulation, fireproofing, ceilings and wall finishes are present in virtually all of the pre-1979 NIH buildings. Asbestos is typically found as insulation on the utility distribution

systems in mechanical rooms, steam stations, and plumbing chases. There are also occupied areas that contain asbestos as part of the plaster ceilings. When the asbestos in any of these areas is deteriorating or is disturbed, the fibers can be released into the air, resulting in a health hazard to persons exposed to the material. Asbestos control practices are used whenever there is a risk of exposure to airborne asbestos concentrations. These control practices are expensive, but necessary to protect the health of individuals in surrounding areas.

Since most of the NIH buildings contain asbestos, renovation activities involve asbestos abatement as part of the overall project. In some cases, the costs associated with abatement are a substantial part of the total project cost.

PROJECT JUSTIFICATION

This project involves existing property which contains asbestos material that has been designated as a health hazard when the material is friable and released into the environment. Abatement is mandated by Federal health requirements.

JUSTIFICATION FOR DIRECT FEDERAL CONSTRUCTION

This project involves the upgrading of existing federal facilities.

FIRE PROTECTION AND LIFE SAFETY PROGRAM

FY 1998 APPROPRIATION ESTIMATE\$2.00 M

This request is the fourth under a multi-year upgrade program to correct Life Safety Code deficiencies in facilities throughout the NIH Bethesda campus and the NIH Animal Center. The appropriations summary for this program follows:

Fiscal Year	Amount
1994	\$ 2.00 M (Appropriated Amount)
1995	\$ 2.00 M (Appropriated Amount)
1996	\$ 2.00 M (Appropriated Amount)
1997	\$ 2.00 M (Appropriated Amount)
1998	\$ 2.00 M (Appropriation Requested)
1999	\$ 3.00 M (In FY 1998-2002 Plan)
2000	\$ 3.00 M (In FY 1998-2002 Plan)
2001	\$ 3.00 M (In FY 1998-2002 Plan)
2002	\$ 3.00 M (In FY 1998-2002 Plan)
Total Appropriations to Date	\$ 8.00 M
Total Funding Requirement to Date	\$22.00 M

PROJECT DESCRIPTION

This program is to upgrade antiquated and inefficient fire protection systems. Besides correcting immediate fire safety issues, a master fire protection plan was developed as part of the program. Sprinkler systems and an improved fire alarm reporting system are to be provided. Improvements in emergency egress as well as upgrading of fire doors and door hardware, emergency lighting and exit marking are to be achieved. This project will include the design and construction for the replacement of the NIH fire alarm system and, include a new fiber optic trunk distribution line to enhance communications.

PROJECT JUSTIFICATION

The fire protection system at NIH has numerous deficiencies which impact on life safety. Because of the nature of the NIH work, with the large amounts of electrical equipment, chemicals,

flammable gases, etc., there is a high potential for fires. Accordingly, to protect patients, personnel, and property, a comprehensive, state-of-the-art sprinkler and fire alarm system is needed. In the past, limited resources have severely restricted NIH's ability to respond to fire protection and life safety deficiencies.

JUSTIFICATION FOR DIRECT FEDERAL CONSTRUCTION

This involves the upgrading of existing federal facilities to comply with NFPA requirements and to reduce operating expenses.

INDOOR AIR OUALITY IMPROVEMENT PROGRAM

This is the third request under a multi-year program to address indoor air quality deficiencies in NIH facilities. The appropriations and funding requirements summary follows:

Fiscal Year	Amount
1996	\$ 1.50 M (Appropriated Amount)
1996	\$ 1.00 M (Reprogrammed Amount)
1997	\$ 1.50 M (Appropriated Amount)
1998	\$ 1.50 M (Appropriation Requested)
1999	\$ 2.50 M (In FY 1998-2002 Plan)
2000	\$ 5.00 M (In FY 1998-2002 Plan)
2001	\$ 5.00 M (In FY 1998-2002 Plan)
2002	\$ 5.00 M (In FY 1998-2002 Plan)
Total Appropriations To Date	\$ 3.00 M
Total Funding Requirement to Date	\$22.00 M

PROJECT DESCRIPTION

This request will permit NIH to develop a comprehensive program to identify and correct air quality deficiencies in NIH facilities. Existing facilities and their ventilation systems will be evaluated to identify deficiencies, to propose corrective actions, and to mitigate problems. Items of concern to be evaluated include the capacity of the heating, ventilation and air-conditioning systems, relative air flow, fume hood operations, recirculated air quality, sources of contamination and cross-contamination.

PROJECT JUSTIFICATION

Known indoor air quality (IAQ) health risks such as radon, bio-aerosols, volatile organic compounds and a variety of other potential health threatening substances in the work place, coupled with inadequate ventilation, can produce a substantial risk to employee health and comfort. Most of the NIH buildings and ventilation equipment are in excess of 20 years old and were not designed to meet current ventilation standards. This request initiates surveys/studies of current ventilation conditions particularly in the older buildings to identify actions required to

bring them in compliance with current ventilation standards.

JUSTIFICATION FOR DIRECT FEDERAL CONSTRUCTION

Existing facilities are owned and operated by the Federal Government. To meet current and/or proposed ventilation and occupational safety and health standards, older systems must be upgraded or replaced to provide a healthy environment for employees, patients and visitors.

ELIMINATION OF BARRIERS TO PERSONS WITH DISABILITIES

<u>FY 1998 APPROPRIATION ESTIMATE....</u>\$ 1.00 M

This request is the fourth under a multi-year program to eliminate architectural and other barriers on the NIH campus and within its facilities which make it difficult for people with disabilities to access and utilize available resources. The appropriations and funding requirements summary follows:

Fiscal Year	Amount
1984	\$.94 M
1996	\$ 1.50 M
1997	\$ 1.50 M (Appropriated Amount)
1998	\$ 1.00 M (Appropriation Requested)
1999	\$.50 M (In FY1998-2002 Plan)
2000	\$.50 M (In FY 1998-2002 Plan)
2001	\$.50 M (In FY 1998-2002 Plan)
2002	\$.50 M (In FY 1998-2002 Plan)
Total Appropriations To Date	\$3.94 M
Total Funding Requirement to Date	\$ 6.94 M

PROJECT DESCRIPTION

This project removes existing barriers to people with disabilities within the National Institutes of Health's (NIH) buildings. A survey of NIH buildings, along with a companion report, has been completed. Architectural and access barriers which need to be corrected were identified to include restroom modifications, elevator controls, door openings, and fire alarm devices. Exterior barriers which restrict building access by people with disabilities have or are currently being modified to comply with the Uniformed Federal Accessibility Standards (UFAS).

PROJECT JUSTIFICATION

This project is to remove barriers in NIH facilities to comply with PL 90-480.

JUSTIFICATION FOR DIRECT FEDERAL CONSTRUCTION

This work is being performed on Federally-owned real property to comply with federal regulations.

BIO-SAFETY LEVEL 3 LABORATORY

ROCKY MOUNTAIN LABORATORIES

This request is to provide laboratory and vivarium space for the National Institute on Allergy and Infectious Diseases (NIAID) at the Rocky Mountain Laboratories (RML), Hamilton, Montana.

PROJECT DESCRIPTION

This project constructs a facility of approximately 12,120 gross square feet to house Bio-safety Hazard Level 3 laboratory and vivarium space to satisfy mission requirements.

PROJECT JUSTIFICATION

Currently, the RML only has temporary space, retrofitted on an interim basis to conduct Biosafety Hazard Level 3 research on multi-drug resistant tuberculosis. The existing structure is aged, difficult to maintain, and does not comply with the facility standards necessary for Biosafety Hazard Level 3 containment research.

This project replaces a marginally code compliant structure with a new permanent laboratory and vivarium facility. In addition to the multi-drug resistant tuberculosis research, the NIAID also intends to conduct work in the area of HIV within this facility.

Without the proposed facility, NIAID's continued exploration in the areas of tuberculosis, HIV and other infectious diseases would not be possible and would be highly detrimental to the public health mission.

JUSTIFICATION FOR DIRECT FEDERAL CONSTRUCTION

The use of leased facilities is not an option due to the remote location of the Rocky Mountain Laboratories.

UPGRADE UTILITY INFRASTRUCTURE. NIHAC

This request is for design funding necessary to develop construction documents to expand the utility infrastructure system at NIHAC. The funding requirement and appropriations summary follows:

Fiscal Year	Amount	
1998	\$ 3.40 M (Appropriation Requested)	
1999	\$ 16.00 M (In FY 1998-2002 Plan)	

\$ 16.00 M (In FY 1998-2002 Plan) 2000 \$ 0.00 M (Funding Requirement)

Total Appropriations To Date: \$ 0.00 M

Total Funding Requirement To date: \$ 19.40 M

PROJECT DESCRIPTION

This project improves the utility system capacities, upgrade deteriorated equipment, and correct AAALAC deficiencies to support animal care and research. The existing chiller plant will be upgraded to provide 2,440 tons of additional capacity. Existing secondary chilled water distribution system pumps will be replaced with variable-speed units to maximum efficiency and reliability. Three new cooling towers will be added in a facility of approximately 6,500 gross square feet to operate in conjunction with the existing towers.. The three existing boilers will receive continued use in addition of the two new boilers which provide 23,000 lb./hr operating capacity. To meet rigid accreditation requirements, four new emergency generators will be installed to supply 100 percent of the central plant and center building electric loads. A new domestic water storage tank will be added to comply with NEPA standards for fire protection, and a new sanitary sewer line will be installed between manhole 29 and manhole 31. The deteriorated portions of the underground steam distribution system will be replaced.

PROJECT JUSTIFICATION

On June 1, 1993, a site utility planning report for the NIH Animal Center was completed by an engineering consultant. All existing utility infrastructure equipment was assessed for condition and capacity. After a utility system load analysis, capacity shortages were calculated through

January 1996. There will be a 2,263 ton shortage in chiller capacity; a 56,220 lb./hr. shortage in steam capacity; and a 34,000 gallon per day increase in domestic water usage. The utility system capacity shortages and stricter accreditation requirements for animal environments have resulted in the need for this utility expansion project. The existing chillers are over 20 years old and utilize refrigerant R-11, which contains hazardous CFC's which is being phased out of use based on government regulation, making it necessary to replace the existing chillers and the secondary chilled water distribution systems. Other equipment deteriorated beyond repair includes the underground sanitary line between manhole 29 and 31 and the entire underground steam distribution system.

JUSTIFICATION FOR DIRECT FEDERAL CONSTRUCTION

There is no viable alternative to increasing utility infrastructure support than on-site expansion.

CAGEWASH FACILITY

ROCKY MOUNTAIN LABORATORY

(Rehabilitation of Animal Research Facilities)

FY 1998 APPROPRIATION ESTIMATE.....\$2.30 M

This request is under the Rehabilitation of Animal Research Facilities Program. This project is for the construction of a Cage Washing Facility at the Rocky Mountain Laboratory (RML) complex in Hamilton, Montana to comply with AAALAC guidelines. The funding requirement and appropriations summary follows:

Fiscal Year Amount

1998 \$ 2.30 M (Appropriation Requested)

Appropriations To Date: \$ 0.00 M

Total Funding Requirement To Date: \$ 2.30 M

Note: This requirement is part of the "Rehabilitation of Animal Research Facilities Program".

PROJECT DESCRIPTION

This project demolishes existing Buildings and constructs a 6,000 gsf facility to centralize cage washing requirements and provide BL-2/BL-3 vivarium support space to comply with AAALAC guidelines. The facility will be located between existing Buildings 12 and 13 to replace existing NIAID facilities.

PROJECT JUSTIFICATION

Currently, the RML cage wash facility is undersized and does not comply with AAALAC accreditation guidelines due to a lack of clean and dirty access areas. Without this clear separation of functions, AAALAC accreditation will be jeopardized.

JUSTIFICATION FOR DIRECT FEDERAL CONSTRUCTION:

The use of leased facilities is not an option due to the remote location of the Rocky Mountain Laboratories.

NEW ANIMAL HOLDING

ROCKY MOUNTAIN LABORATORY

(Rehabilitation of Animal Research Facilities)

This request is under the Rehabilitation of Animal Research Facilities Program to upgrade animal holding space at the Rocky Mountain Laboratory (RML) complex in Hamilton, Montana to comply with AAALAC guidelines. The funding requirement and appropriations summary follows:

Fiscal Year Amount

1998 \$ 2.50 M (Appropriation Requested)

Appropriations To Date: \$ 0.00 M

Total Funding Requirement To Date: \$ 2.50 M

Note: This requirement is part of the "Rehabilitation of Animal Research Facilities Program".

PROJECT DESCRIPTION

This project renovates and upgrades the architectural, mechanical, plumbing, electrical and structural systems in Building 13. Architectural work will include reconfiguration of existing spaces to provide sufficient animal surgery, quarantine and holding spaces, aesthetic upgrades, and other features to comply with the handicap provisions of the Uniformed Federal Accessibility Standards (UFAS). Mechanical work will include upgrading the heating, ventilation and air conditioning systems to increase air distribution to comply with AAALAC guidelines. Electrical system upgrades will be made to improve service reliability and lighting levels. Plumbing systems will be modified to enhance safety and increase efficiency to include the installation of fire protection systems to comply with the Life Safety Code (LSC). Structurally, seismic reinforcement is required to comply with the Uniform Building Code (UBC). From an environmental standpoint, hazardous materials such as asbestos, PCB's and lead-based paint will be removed and disposed of to comply with applicable regulations.

PROJECT JUSTIFICATION

The existing Animal Holding Facility is approximately 30 years of age and many of its mechanical, electrical and plumbing distribution systems are nearing their useful life. Access to the facility does not comply with the UFAS, air distribution rates do not comply with AAALAC criteria, plumbing systems and figures are in need of replacement, the facility does not have fire protection systems to comply with the LSC, and seismic reinforcement is required to comply with the UBC. Without these upgrades, the health and safety of personnel, the research mission of NIAID, and AAALAC accreditation could be jeopardized.

JUSTIFICATION FOR DIRECT FEDERAL CONSTRUCTION:

The use of leased facilities is not an option due to the remote location of the Rocky Mountain Laboratories.

NEW NIH DAY CARE CENTER

This request is to provide a New Day Care Center on the National Institutes of Health campus. The funding requirement and appropriations summary follows:

Fiscal Year Amount

1998 \$ 3.50 M (Appropriation Requested)

Total Appropriations To Date: \$ 0.00 M

Total Funding Requirement To Date: \$ 3.50 M

PROJECT DESCRIPTION:

This project will provide a New Day Car Center of approximately 21,000 gross square feet. The facility will house administrative spaces, classrooms for children ranging in ages from infants to older toddlers, interior-exterior play areas, handicap accessible spaces, kitchen/laundry facilities, parent/teacher conference areas, and spaces to accommodate equipment and utility systems.

PROJECT JUSTIFICATION:

The current Day Care Centers on the NIH campus cannot keep up with the rising demand for child care. The existing centers have outgrown their existing spaces, lack adequate staff, storage, equipment, classroom, restroom and other areas necessary to comply with GSA and the State of Maryland sizing/space criteria for this facility type. This facility will be sited and constructed to comply with the recently approved NIH Master Plan which fully supports this and other Day Care Centers on the NIH campus to satisfy existing and projected needs of the many researchers and others. This facility will also reduce the long waiting lists for child care and provide a high-quality and safe facility on-campus which will contribute to the effectiveness of the intramural research program as well as other management support activities. This is also in keeping with the DHHS effort to improve the work environment. Without this new facility, the NIH will continue not being able to satisfy the needs of its employees.

JUSTIFICATION FOR DIRECT FEDERAL CONSTRUCTION

This is the most economic solution and the best utilization and federal resources. A leased-space solution is not a preferred option since it will not allow opportunities for immediate access by employees to their children that an on site facility permits.

GENERAL REPAIR AND IMPROVEMENT (LUMP SUM)

This request is to continue support of the facility Repairs & Improvements (R & I) Program. Adjustments in program requirements have been made for increases in space, overall age and condition of the facilities. The estimate was calculated in accordance with the National Academy of Sciences Report, "Committing to the Cost of Ownership; Maintenance and Repair of Public Buildings" (1990). The funding concept used in this report provides for an R&I lump sum budget based on 2 to 4% of the facility replacement cost, including underground utilities. The percentage varies based on the facility type (i.e., office, hospital, research labs, etc.). Using the floating percentages, the annual maintenance funding requirement is developed exclusive of the accumulated or deferred maintenance backlog (unfunded requirements). An appropriations and funding requirement summary for the past five fiscal years follows:

Fiscal Year	Amount
1994	\$ 70.00 M (Funding Requirement)
1994	\$ 17.84 M (Appropriated Amount)
1995	\$ 75.60 M (Funding Requirement)
1995	\$ 17.38 M (Appropriated Amount)
1996	\$ 80.68 M (Funding Requirement)
1996	\$ 19.43 M (Appropriated Amount)
1997	\$ 88.62 M (Funding Requirement)
1997	\$ 25.90 M (Appropriated Amount)
1998	\$ 106.81 M (Funding Requirement)
1998	\$ 35.00 M (Appropriation Requested)

A total of 11,001,524 gross square feet of building area exist on the main and satellite campuses of the NIH to be repaired and maintained. The replacement value for these facilities is \$2,642,083,000. The R&I lump sum unadjusted funding requirement is \$129.812 M. This figure reflects the 2-4% maintenance factors and 50% of the costs of the deferred maintenance backlog. The adjusted funding requirement after deleting costs of maintenance personnel salaries, materials, equipment and contracts is \$106.812 M. (*A 6% allowance is included to cover the costs of procurement, engineering contract administration and value engineering). Pages 22 through 24 identifies the work covered under this request.

PROJECT DESCRIPTION

The R & I Program is for major repairs and improvements to the physical plants of the National Institutes of Health located in Bethesda, MD; Poolesville, Maryland; Baltimore, Maryland; Research Triangle Park, North Carolina; Rocky Mountain Laboratory, Hamilton, Montana; William A. White Facility, St. Elizabeth's Hospital Complex Washington, D.C.; Frederick Cancer Research Facility, Frederick, Maryland; Perrine, Florida; Sabana Seca, Puerto Rico and New Iberia, Louisiana. Some of these costs are for recurring requirements such as the replacement of roofs, roads, structures, buildings and underground utilities which require repairs to maintain sound operating conditions. Other costs are one-time expenditures for major items of equipment which require unpredictable repair or replacement, such as transformers, chillers and cooling towers. Typically, these items are in need of immediate attention, and not suited to submission under the normal budgetary process. Additionally, this program supports adjustments to the building utility systems to provide the necessary capacity to accommodate mission changes mandated by research initiatives. These needs usually have a very short, unpredictable lead-time and cannot be deferred. Environmental requirements that have been placed on federal facilities, such as the restriction on the use of CFC's and HCFC's in HVAC systems, clean air and water, storm water management, and energy management, also fall under the Lump Sum R & I Program.

PROJECT JUSTIFICATION

Many of the NIH facilities and utility systems are approaching their useful life expectancy resulting in high maintenance and operating costs as the norm. The research laboratories, animal areas, clinical areas, and related support spaces, together with the infrastructure, power plant, and utility distribution systems, require a high level of reliability and sophistication making the Repair and Improvements Program essential for NIH to accomplish its mission. Another key requirement of the R&I Program is to provide the necessary facility support for the numerous NIH facilities to remain AAALAC and JCAHO accredited.

JUSTIFICATION FOR DIRECT FEDERAL CONSTRUCTION

This program addresses federally owned and/or operate facilities.

DIVISION OF ENGINEERING SERVICES FY1998 REPAIR AND IMPROVEMENTS PROGRAM (AS OF MARCH 11,1997)

		Program	Line Item
	<u>Line Item</u>	Cost	Cost
NIEHS		\$700,000	
	Electrical Repairs - Primary		\$700,000
FCRDC		\$500,000	
	NCI Multiple Repair Projects		\$500,000
JCAHO/BLDG. 10		\$7,765,000	
	Correct HVAC Deficiencies, A Wing		\$1,300,000
	Repair Parking Garage, Phase II		\$2,800,000
	Repair Potable Water System		\$1,460,000
	Upgrade Electrical Distribution, Building 10		\$325,000
	Correct Distilled Water System Deficiencies		\$1,200,000
	Correct Lightning Protection Deficiencies		\$180,000
	Replace HVAC system for Autopsy Area, Building 10		\$225,000
	Correct Vibration Problems in Operating Rooms, Building 10		\$275,000
AAALAC		\$2,025,000	
	Lease 1,000 Ton Chiller, NIHAC		\$375,000
	Swat Team - AAALAC Deficiencies (Room by Room)		\$300,000
	Correct HVAC Deficiencies in Animal Care Areas		\$750,000
	Replacement of Dog Runs, Buildings 28 and 102		\$600,000
GRC		\$1,600,000	
	Correct HVAC System Deficiencies, Phase I		\$750,000
	Correct Structural and Architectural Deficiencies		\$650,000
	Upgrade Service Elevator #3		\$200,000

DIVISION OF ENGINEERING SERVICES FY1998 REPAIR AND IMPROVEMENTS PROGRAM (AS OF MARCH 11,1997)

	<u>Line Item</u>	Program Cost	Line Item Cost
MAINTENANCE CONTRACTS		\$1,575,000	
	Controltron Vitrasonic Flowmeters Landis & Gyr Building Automation 14 KV Cable Replacement		\$250,000 \$675,000 \$650,000
UTILITIES		\$6,895,000	
	Replace Motor Control Center, Bldg. 41 Repair Building 5 Electrical Switch Gear		\$200,000 \$500,000
	Rehabilitation of Sanitary Sewer Lines, NIH Main campus		\$750,000
	Rehabilitation of Domestic Water Lines, NIH Main campus		\$820,000
	Building 29/29A HVAC/Electrical Repairs		\$500,000
	Replace HVAC and Electrical Systems, Building 41, Phase I		\$1,160,000
	Replace Chiller and Air Handler, Building 82		\$510,000
	Repair Elevators, Building 36		\$650,000
	Repair Elevators, Building 29A		\$650,000
	Repair Elevators, Building 38		\$500,000
	Repair Elevators, Building 31B Replace AHUs, Building 31		\$455,000 \$200,000
INT/EXT REPAIRS		\$2,795,000	
	Replace Roofing, Building 41		\$400,000
	Correct Building System Deficiencies, Building		\$140,000
	15K Repair MLP-7		\$1,000,000
	Environmental Spill Containment, Bldg. 21		\$280,000
	Upgrade Walk In Boxes (R-12 Phase Out)		\$750,000
	Major Road/Pavement Upgrades		\$225,000

DIVISION OF ENGINEERING SERVICES FY1998 REPAIR AND IMPROVEMENTS PROGRAM (AS OF MARCH 11, 1997)

	<u>Line Item</u>	Program Cost	Line Item Cost
	<u>Line nem</u>	Cosi	Cost
PHYSICAL PLANT OPERATIONS		\$7,645,000	
	Emergency Minor Repair Projects		\$5,645,000
	Repair Materials for Preventive Maintenance Program		\$2,000,000
OTHER		\$3,500,000	
	Site and Program Changes, Closeouts, and Settlements		\$2,000,000
	Design/Administrative Fees for R&I Program		\$1,500,000
TOTAL PROGRAM		\$35,000,000	